

AMENDMENTS TO THE CLAIMS

1. (currently amended) A multistage process for the continuous production of an emulsion, the process comprising subjecting at least two immiscible liquids to a sequence of at least two mixing stages carried out in at least two successive stator-rotor devices each comprising at least one rotor disk and at least one stator, the at least one rotor disk having a peripheral velocity, wherein:
 - a peripheral outlet from a first stator-rotor device is connected to an axial inlet in a successive stator-rotor device by means of a duct comprising an initial portion and an end portion, in which a Reynolds number Re_T inside said duct is higher than 5000, the initial portion of the duct being oriented in a direction substantially tangential to the circumference of the rotor; and
 - the peripheral velocity of each rotor of said stator-rotor devices ranges from 5 to 60 m/s.
2. (previously presented) The process according to claim 1, wherein said emulsion comprises, as a dispersed phase, a molten adduct of magnesium dihalide-Lewis base.
3. (previously presented) The process according to claim 2, wherein said emulsion comprises, as a continuous phase, a liquid which is inert and immiscible with said molten adduct of magnesium dihalide-Lewis base.
4. (original) The process according to claim 3, wherein said inert and immiscible liquid is selected from aliphatic and aromatic hydrocarbons, silicone oils, liquid polymers or mixtures of said compounds.
5. (currently amended) The process according to claim ~~23~~, wherein said molten adduct of magnesium dihalide-Lewis base is fed to said first stator-rotor device at a weight ratio of less than 0.5 with respect to said inert and immiscible liquid.
6. (previously presented) The process according to claim 1, wherein in each mixing stage a residence time is of less than 1 second.
7. (previously presented) The process according to claim 1, wherein the peripheral velocity of the at least one rotor disk is comprised in the range from 20 to 60 m/sec.
8. (previously presented) The process according to claim 1, wherein the Reynolds number Re_T inside said duct is higher than 8000.
9. (previously presented) The process according to claim 1 comprising a sequence of three

mixing stages.

10. (previously presented) The process according to claim 2, wherein said magnesium dihalide is magnesium chloride.
11. (previously presented) The process according to claim 2, wherein said Lewis base is selected from amines, alcohols, esters, phenols, ethers, polyethers, aromatic or aliphatic (poly)carboxylic acids.
12. (original) The process according to claim 11, wherein said Lewis base is an alcohol of formula ROH, in which R is an alkyl group containing from 1 to 10 carbon atoms.
13. (previously presented) The process according to claim 2, wherein the molten adduct is $\text{MgCl}_2 \cdot m\text{ROH} \cdot n\text{H}_2\text{O}$, wherein $m=0.1-6.0$, $n=0-0.7$ and R= alkyl group C_1-C_{10} .
14. (original) The process according to claim 13, wherein $m=2.0-4.0$, $n=0-0.4$ and R= ethyl group.
15. (withdrawn) An apparatus for the continuous production of an emulsion comprising at least two stator-rotor devices comprising a rotor, a stator, an axial tolerance between the rotor and corresponding stator, a radial tolerance between a circumference of each rotor and the corresponding stator, the rotor comprising a circumference, a rotation axes, a first side and a second side, each stator except the last being connected with the successive stator by a duct comprising an initial portion and an end portion, the duct extending from a peripheral outlet in a first stator to an axial inlet in the successive stator.
16. (withdrawn) The apparatus according to claim 15, wherein the initial portion of said duct is oriented in a direction substantially tangential to the circumference of each rotor.
17. (withdrawn) The apparatus according to claim 15, wherein the end portion of said duct is oriented in a direction substantially parallel to the rotation axes of each rotor.
18. (withdrawn) The apparatus according to claim 15, wherein said duct is shaped as a spiral.
19. (withdrawn) The apparatus according to claim 15, wherein each rotor is perforated by at least one hole allowing the emulsion to pass from the first side to the second side of said rotor.
20. (withdrawn) The apparatus according to claim 15, wherein the axial tolerance between each rotor and the corresponding stator is from 0.1 to 2.0 mm.
21. (withdrawn) The apparatus according to claim 20, wherein said axial tolerance is from 0.2 to 1.2 mm.

22. (withdrawn) The apparatus according to claim 15, wherein the radial tolerance between the circumference of each rotor and the corresponding stator is from 0.2 to 5.0 mm
23. (withdrawn) The apparatus according to claim 22, wherein said radial tolerance is from 0.5 to 2.0 mm.
24. (new) The process according to claim 1, wherein the end portion of the duct is oriented in a direction substantially parallel to the rotation axes of each rotor.
25. (new) The process of claim 1 wherein rotation of the rotor forces the emulsion to flow from the rotor axis towards the peripheral rim of the rotor.